

Patent [19]

[11] Patent Number: 2001187350
[45] Date of Patent: Jul. 10, 2001

[54] AIR CLEANER

[21] Appl. No.: 11375521 JP11375521 JP

[22] Filed: Dec. 28, 1999

[51] Int. CL⁷ B03C00302; A61L00900; A61L00918; B01D04642, B03C003155; B03C00345; B03C00360; F24F00700

[57] ABSTRACT

PROBLEM TO BE SOLVED: To prevent the dust in air from being stuck on a discharge electrode, an electrode to be discharged, an inner wall, etc., of an electrifying unit.

SOLUTION: A control part 46 of an air cleaner 10 lights up a germicidal lamp 34 at S19 and continuously irradiates a photocatalyst layer 39 with UV rays. The control part proceeds to S21 at the point of time when a counted value of a timer counter 48 reaches exciting start time T0 when light exciting is generated at S20 and returns the counted value of the timer counter 48 to zero and the counter is restarted. The control part 46 lights off the germicidal lamp 34 at following S22 and confirms that the hydrophilic property of the photocatalyst layer 39 is sufficiently kept by monitoring an elapsed time at S23. In the case the counted value of the timer counter 48 rises above a hydrophilicity impartation duration T1, the control part 46 returns to S19 and lights up the germicidal lamp 34 and restarts UV rays irradiation to the photocatalyst layer 39. The hydrophilic state of the photocatalyst layer 39 is maintained and power-saving is attained since the germicidal lamp 34 intermittently lights up like this.

* * * *